

What is claimed is:

- 1 1. A circuit, comprising:
2 an oscillator circuit adapted to oscillate at a
3 predetermined frequency; and
4 an enable circuit having an input and an output coupled
5 to the oscillator circuit, the output of the enable circuit
6 having an inactive state upon the circuit being powered up
7 and an active state to enable the oscillator circuit to
8 oscillate a predetermined period of time following the input
9 of the enable circuit transitioning from the inactive state.

- 1 2. The circuit of claim 1, wherein the enable circuit
2 comprises a counter having an enable input coupled to the
3 input of the enable circuit and an output coupled to the
4 output of the enable circuit.

- 1 3. The circuit of claim 2, wherein the enable circuit
2 further comprises a ring oscillator having an output coupled
3 to a clock input of the counter.

1 4. The circuit of claim 2, wherein the counter includes
2 a control input which, when in an active state, places the
3 counter in a predetermined state, the control input being
4 coupled to power-on-reset circuitry.

1 5. The circuit of claim 4, wherein the control input is
2 a reset input that selectively resets the counter.

1 6. The circuit of claim 1, wherein the enable circuit
2 comprises a ring oscillator.

1 7. The circuit of claim 1, wherein the oscillator
2 circuit comprises:
3 a crystal;
4 at least one capacitor coupled to the crystal; and
5 a transistor coupled across the capacitor and having a
6 control terminal coupled to the output of the enable circuit.

1 8. The circuit of claim 1, further comprising:
2 a current source that selectively sources current to the
3 oscillator circuit, including at least one enable input; and
4 a control circuit having an input coupled to the output
5 of the enable circuit and at least one output coupled to the
6 at least one enable input of the current source.

1 9. A method for enabling an oscillator circuit to
2 oscillate, comprising:
3 receiving a power-on-reset signal;
4 generating an enable signal that transitions from an
5 inactive state to an active state so as to enable the
6 oscillator circuit to oscillate, the enable signal
7 transitions to the active state a period of time following
8 the power-on-reset signal transitioning from a reset state;
9 and
10 applying the enable signal to the oscillator circuit.

1 10. The method of claim 9, wherein the step of
2 generating an enable signal comprises counting a number of
3 periods of a clock signal and driving the enable signal to
4 the active state when a predetermined number of clock periods
5 appear on the clock signal.

1 11. The method of claim 10, wherein the predetermined
2 number of clock periods are counted from a time when the
3 power-on-reset signal transitions from the reset state.

1 12. The method of claim 10, wherein the step of
2 generating an enable signal further comprises generating the
3 clock signal.

1 13. The method of claim 9, wherein the oscillator
2 circuit comprises a crystal, and the step of applying
3 comprises shorting a terminal of the crystal to a
4 predetermined voltage when the enable signal is in the
5 inactive state and releasing the shorting of the terminal
6 when the enable signal is in the active state.

1 14. A circuit, comprising:
2 an oscillator circuit capable of oscillating at a
3 predetermined frequency; and
4 an enable circuit having an output coupled to the
5 crystal oscillator circuit, the output of the enable circuit
6 transitioning from an inactive state to an active state a
7 predetermined period of time following the circuit being
8 initially powered, for enabling the oscillating the
9 oscillator circuit to oscillate.

1 15. The circuit of claim 14, wherein the enable circuit
2 comprises a counter having an output coupled to the output
3 of the enable circuit.

1 16. The circuit of claim 15, wherein the enable circuit
2 further comprises a ring oscillator having an output coupled
3 to a clock input of the counter.

1 17. The circuit of claim 15, wherein the counter
2 includes a control input which selectively places the counter
3 in a predetermined state.

1 18. The circuit of claim 17, wherein the control input
2 is a reset input that selectively resets the counter.

1 19. The circuit of claim 17, wherein the control input
2 receives a power-on-reset signal.

1 20. The circuit of claim 14, wherein the enable circuit
2 comprises a ring oscillator.

1 21. The circuit of claim 14, wherein the oscillator
2 circuit comprises:

3 a crystal;

4 at least one capacitor coupled to the crystal; and

5 a transistor coupled across the capacitor and having a
6 control terminal coupled to the output of the enable circuit.

1 22. The circuit of claim 14, further comprising a power-
2 on-reset circuit, wherein the enable circuit comprises a
3 counter having an output coupled to the output of the enable
4 circuit and a control input used to selectively place the
5 counter in a known state, the control input being coupled to
6 the output of the power-on-reset circuit.

1 23. The circuit of claim 14, further comprising:
2 a current source that selectively sources current to the
3 oscillator circuit and includes at least one enable input;
4 and
5 a control circuit having an input coupled to the output
6 of the enable circuit and at least one output coupled to the
7 at least one enable input of the current source.

1 24. The circuit of claim 23, wherein the control circuit
2 comprises a pulse generator having an input coupled to the
3 output of the enable circuit, and a transistor coupled
4 between nodes in the current source and having a control
5 terminal coupled to an output of the pulse generator, the
6 transistor being temporarily activated by the pulse
7 generator.

1 25. A system, comprising:
2 a circuit; and
3 oscillator circuitry for receiving an enable signal and
4 generating an oscillating signal at an output of the
5 oscillator circuitry, the output of the oscillator circuitry
6 being coupled to the circuit, the oscillating signal
7 oscillating a predetermined period of time following the
8 received enable signal transitioning to a first logic state.

1 26. The system of claim 25, wherein the oscillator
2 circuitry comprises:

3 a counter having a control input utilized to place the
4 counter in a predetermined state, a clock input and an
5 output, the control input being coupled to the enable signal;
6 and

7 a crystal having a terminal coupled to the output of the
8 counter.

1 27. The system of claim 26, wherein the oscillator
2 circuitry further comprises a ring oscillator having an
3 output coupled to the clock input of the counter.

1 28. The system of claim 26, wherein the oscillator
2 circuitry further comprises a transistor having a conduction
3 terminal coupled to the terminal of the crystal and a control
4 terminal coupled to the output of the counter.

1 29. The system of claim 26, wherein the oscillator
2 circuitry further comprises a logic inverter coupled to the
3 crystal, and a current source for selectively providing
4 current to the logic inverter, the current source having an
5 enable input coupled to an output of the counter.